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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,963	08/04/2003	Hyung-Sok Yeo	249/398	4479
27849	7590	10/16/2007		
LEE & MORSE, P.C. 3141 FAIRVIEW PARK DRIVE SUITE 500 FALLS CHURCH, VA 22042			EXAMINER NASSER, ROBERT L	
			ART UNIT 3735	PAPER NUMBER
			MAIL DATE 10/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/632,963

Applicant(s)

YEO ET AL.

Examiner

Robert L. Nasser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 9-15 and 22-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 16-21, 29-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/12/2007 has been entered.

Claims 9-15 and 22-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 9/1/2006.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-8, 16-21, and 29-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has recited that the light source itself contacts the object. However, the only disclosure is that the is a light source unit has an light source therein, and the unit protrudes from the body

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60. There is no disclosure of how the source is positioned inside the light source unit.

Accordingly, there is no support for the limitation that the light source contacts the object. Since the limitation was added via amendment, it constitutes new matter.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-8, 16-21, and 29-31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim recites that the light source is in contact with the object. In this case, the object is the human body. The human body is non-statutory and cannot be positively recited. As such, the claim is non-statutory. Applicant should recite that the light source is positioned or adapted to contact the object ....

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Nie 3810460 in view of Gavish 4850574. Van Nie shows a photoplethysmographic probe including a light source 9 that contacts the body of the user and photodetector

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unit 9 facing the light source on the same axis. Since the device is movable any axis can be a vertical axis. Van Nie also shows a body 3 having space for receiving the object, and a pressure application unit, i.e. spring 37 for applying pressure to the object. The pressure application unit is not on a vertical line passing through the source and detector. Gavish teaches a probe wherein the pressure application unit is in the same axis of the source and a detector (figure 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Van Nie to include the pressurization unit of Gavish, as it is merely the substitution of one known pressurization means for another. Claim 2 is rejected in that the examiner takes official notice that LEDs are suitable for the purposes of Van Nie. Hence, it would have been obvious to modify Van Nie to use an LED as it is merely the selection of a well known source for its purposes. Claim 3 is rejected in that the photodetector converts the detected light into a current. Claim 4 is rejected in that the pressurization device is also in the optical axis. Claim 5 is rejected in that the pressurization device of Gavish is a bolt and nut.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Nie and Gavish as applied to claims 1-5 above, and further in view of Ogawa et al. (US Patent No. 5427093). Ogawa et al. teach the use of a heat-dissipating plate above the light source (figure 1 reference 9). If the heat-dissipating plate is located above the light source and the nut is attached to the light source it is inherent that the plate is between the nut and the light source. It would have been obvious to one of ordinary skill in the art at the time of the present inventor to modify the combination above to include a heat-

dissipating plate similar to that of Ogawa et al. in order to prevent a low temperature burn to the patient.

Claims 17-20 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Nie 3810460 in view of Gavish 4850574 and Hausman et al 4883353. In addition to the features of Van Nie and Gavish discussed above, Hausman teaches that it is known to display the intensity of the waveforms in a PPG device (see cover figure, for example). Hence, it would have been obvious to modify the combination to display the intensity, as it is merely the choice of a known display technique in the art. Claims 18-20 and 29 are rejected for the reasons given above. Claim 30 is rejected in that the examiner takes official notice that microprocessors are well known to be used as controllers and hence that it would have been obvious to modify the combination to use a microprocessor. Claim 31 is rejected in that in that the examiner takes official notice that it is well known to digitally process the signals and that such requires a a/d converter.

Claims 7, 8, 16, and 21 would be allowable if the rejection under 35 U.S.C. 112, 1st paragraph were overcome and if rewritten to include all of the limitations of the base claim and any intervening claims. Claims 7, 8, and 21 define over the art in that none of the art has the claimed elastic member. Claim 16 defines over the art in that none of the art has the pressure application break button.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert L. Nasser whose telephone number is 571 272-4731. The examiner can normally be reached on m-f 9-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on 571 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert L. Nasser  
Primary Examiner  
Art Unit 3735



RLN  
September 23, 2007